

# Iowa Department of Natural Resources

## Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 22.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

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The Iowa Department of Natural Resources (DNR) finds that:

1. John Deere Engine Works, located at 3801 W. Ridgeway Avenue, Waterloo, IA 50704 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Heather Bishop.
2. John Deere Engine Works is a Internal Combustion Engine Manufacturing facility. This facility consists of 24 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ( $\leq 2.5 \mu\text{m}$ )	PM <sub>2.5</sub>	0
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	31.32
Particulate Matter	PM	31.32
Sulfur Dioxide	SO <sub>2</sub>	93.10
Nitrogen Oxides	NO <sub>x</sub>	180.75
Volatile Organic Compounds	VOC	83.75
Carbon Monoxide	CO	52.27
Lead	Lead	0
Hazardous Air Pollutants <sup>(1)</sup>	HAP	3

<sup>(1)</sup> May include the following: Ethylbenzene, cumene, acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, hexane, naphthalene, toluene, xylene.

3. John Deere Engine Works submitted a Title V Operating Permit renewal application on April 1, 2020 and any additional information describing the facility on January 20, 2022. Based on the information provided in these documents, DNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 22.107.
4. DNR has complied with the procedures set forth in 567 IAC 22.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.

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DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from March 24, 2022 through April 23, 2022. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Zane Peters at the DNR address shown below. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. DNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Zane Peters at the DNR address shown below.
3. DNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, DNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

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DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 20-35, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. DNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 20-35.
4. DNR is required to comply with 567 IAC Chapter 22 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the DNR from pursuing enforcement action for any violation.

Facility Name:	<b>John Deere Engine Works</b>
City:	Waterloo
County:	Black Hawk
Facility #:	07-01-091
EQ #:	92-1318
Renewal Application Received:	04/01/20
Permit #:	04-TV-018R3
Reviewer:	Zane Peters

#### **A. Facility Identification:**

Facility Name: John Deere Engine Works  
Facility Location: 3801 Ridgeway Ave., Waterloo, IA 50704  
Responsible Official: Ms. Heather Bishop

#### **B. Title V Major Source Status by Pollutant:**

John Deere Engine Works is considered one source with John Deere Product Engineering Center. The table below indicates the pollutants John Deere Engine Works is a major source of for Title V purposes. John Deere Engine Works remains an area source for HAP emissions even when adding the potential HAP emissions from John Deere Product Engineering Center.

<b>Pollutant</b>	<b>Major for Title V?</b>
PM <sub>10</sub>	<input type="checkbox"/>
SO <sub>2</sub>	<input type="checkbox"/>
NO <sub>x</sub>	<input checked="" type="checkbox"/>
VOC	<input type="checkbox"/>
CO	<input type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAPs	<input type="checkbox"/>

#### **C. NSPS NESHAP Applicability**

##### 40 CFR 60 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are EP B2, B3, and B4.

##### 40 CFR 60 Subpart Dc Requirements

This facility is subject to Standards of Performance for Small Industrial – Commercial - Institutional Steam Generating Units. The affected units are B2, B3, and B4.

#### 40 CFR Part 60 NSPS Subpart III Requirements

The emergency generator, EP 110 and fire pump diesel engine, EP-108 are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

#### 40 CFR Part 63 Subpart CCCCCC Requirements

EP 96 is subject to the Gasoline Dispensing Facilities requirements.

#### 40 CFR 63 Subpart ZZZZ Requirements

The emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

### **D. Changes Made Since the Last Title V Permit Was Issued**

#### General Changes

1. Permit number updated (pp 1, 4, 8, 11, footer) and permit writer initials updated (footer).
2. Permit expiration and renewal application date updated (pp. 1).
3. Supervisor of Air Operating Permits Section changed to "Marnie Stein."
4. Particulate Matter Facility Wide language updated to the most recent version (pp. 8)
5. A Bubble Limit was inserted for all natural combustion at the facility (pp. 9).
6. 40 CFR 63 Subpart CCCCCC requirements were added to the Plant Wide Conditions section due to the addition of EP 96 (pp. 10).
7. The General Conditions were updated (pp. 51)

#### Emission Point Specific Changes

1. EPs 92, 100TC5, and 100TC6 REMOVED from the equipment list (pp. 4) and from the Emission Point Specific Characteristics section
2. EP 92 REMOVED from the equipment list (pp. 4) and from the Emission Point Specific Characteristics section (pp. 25).
3. EPs 93, 94, and 95 changed to B2, B3, and B4 respectively (pp. 4, 25, 27).
4. EPs 96 ADDED to the equipment list (pp. 4) and to the Emission Point Specific Characteristics section (pp. 28-29).
5. The SO<sub>2</sub> emission limit was removed from EPs B2 and B3 and the construction permit numbers updated (pp. 25).
6. The rated capacity, exhaust flow rate, and exhaust temperature for B4 was updated and construction permit numbers updated (pp. 25-27).
7. EPs 100TC4, 100TC15, and 100TC16 - Given updated rated capacity and volume numbers, and then were separated out from the other Engine Test Cells in a separate table. The Emission Limits section was updated in accordance to construction permit project 21-267. The emission point characteristics were also updated to show the new construction permit numbers and correct stack height/exhaust temperature. (pp. 30-38).

### **D. Periodic Monitoring**

All periodic monitoring requirements are in accordance with the Department's Periodic Monitoring Guidance Document.

EPs PBRZ1 & PBRZ2 are Paint Booth Robotic Zones that utilize dry filters (CE PBRZ1 & CE PBRZ2) for emission control. Due to the Department's policy on spraying, painting, and coating

operations, these emission points will be subject to Agency O&M plans that will monitor the pressure drop and the filter equipment will be operated and maintained according to the manufacturers' recommendations.

EPs PBMZ1 & PBMZ2 are Paint Booth Manual Zones that utilize dry filters (CE PBMZ1 & CE PBMZ2) for emission control. Due to the Department's policy on spraying, painting, and coating operations, these emission points will be subject to Agency O&M plans that will monitor the pressure drop and the filter equipment will be operated and maintained according to the manufacturers' recommendations.

EP RPB is a Rust Prevention Booth the utilizes dry filters (CE-RPB) for emission control. Due to the Department's policy on spraying, painting, and coating operations, these emission points will be subject to an Agency O&M plan that will conduct weekly inspections on the equipment and the filter equipment will be operated and maintained according to the manufacturers' recommendations.

#### **E. Other Considerations**

##### Natural Gas Combustion at the Facility (Plant-wide limit)<sup>(1)</sup>

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit: 13.2 tons/yr

Authority for Requirement: Iowa DNR Construction Permits of applicable emission units

<sup>(1)</sup> Emission limit is total combined emissions for all natural gas combustion at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).